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Veterans Health Administration

GEMS Program - Lessons Learned

Federal Green Challenge Webinar

Federal Green Challenge to Environmental Management System

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Stephan Thomatos, PE

Environmental Engineer, GEMS Coordinator
New York Harbor Healthcare System

...Environmental Management System (EMS)

VHA Drivers for Implementation of EMS:

- **Need to improve environmental performance:**
 - Centralize and improve management of regulatory compliance and become better environmental stewards (Conservation of Natural Resources and Preservation)
 - Develop a structured way of determining root causes of environmental issues and come up with solutions.
- **Executive Order (EO) 13148:**
 - Implement EMS at “appropriate” facilities by 12/31/2005. Also added more stringent requirements on federal facilities in terms of Environmental Stewardship.
 - VHA Directive 2005-011, VHA Green Environmental Management System (GEMS) and Governing Environmental Policy, issued 3/7/2005.



Implementation of GEMS

Framework Setup:

- **VHA level**
 - Establish Environmental Policy
 - Establish “GEMS Guidebook” (March 2004) based on ISO 14001 Standard
 - Describe how the GEMS program was to be implemented: 9-step process.
 - Training for Top management at local level
- **Local (facility) Level**
 - Establish local level Environmental Managers: GEMS Coordinators
 - Establish GEMS Committee: getting all the parties involved.
 - Follow “GEMS Guidebook” as a Ste-by-step guide for GEMS implementation

Nine Steps to Establishing a Successful EMS (GEMS) program



GEMS Implementation...

- Organizational Issues:
 - Framing GEMS in to the existing organizational structure
 - Natural resistance to change by employees and organizations.
 - Budget limitations.
- **Management Support:**
 - Active support and commitment by senior management levels.
 - Selection of GEMS Coordinator and a robust GEMS Committee
 - Relevance of GEMS to the agencies core mission.
- Building the GEMS program on existing procedures and processes – don't reinvent the program, connect with existing elements.
- Training

Additional Objectives set by EO 13423:

- 1. Energy Efficiency and Green House Gas Emissions**
 - Reduce energy intensity 3% annually through FY 2015
- 2. Renewable Energy**
 - Half of renewable energy consumed comes from renewable sources
 - Implement renewable energy generation projects
- 3. Water Consumption**
 - Reduce water consumption intensity
- 4. Acquisition**
 - agency goods and services use sustainable environmental practices
- 5. Reduction of toxics**
 - Reduce toxic and hazardous chemicals use
- 6. Construction**
- 7. Transportation**
 - Reduce consumption of petroleum products, Increase non petroleum fuel consumption and promote the use of plug in hybrid vehicles
- 8. Management of Electronics**

Compliance vs. “Greening”

- Compliance with federal, state and local laws
 - Accomplished at the facility “local”:
 - Examples include design and installation requirements, training, inspections, documentation etc.
 - Local level leadership required to *promote and maintain compliance* through clearly articulated roles and responsibilities
- “Greening the Federal Government”
 - “Big picture” items.
 - Use of all available resources/experts: local, regional

Enhancing Program effectiveness

I. Participation

- i. GEMS Committee meetings: Representatives from each Service/ area (multi-campus facility).
- ii. Updates on new developments and feedback.
- iii. Mandatory Training.

II. Communication

- i. Minutes shared through Web-site, e-mail groups.
- ii. Distribution of updates/info facility wide through newsletter, web-site.
- iii. Progress reports on program: "lessons learned".
- iv. GEMS Coordinator participate in VISN Level committees and decision making groups.

III. Advisory Groups

- I. Professional Advisory Group established with a membership of Top-level management and GEMS Coordinators
 - Centralized Decision making. Sharing of expertise.
 - "Top-down" approach on issues.
- II. Examples:
 - Spearhead a Department-wide approach to Pharmaceutical waste management.
 - Establish Contract language for
- III. Use of outside resources:
 - EPA Healthcare Environmental Assistance Resources.



Examples

Operational controls for aspects that need to be addressed through the EMS program



Establish Operational Controls: Energy

- Facilities Management:
 - Promote the use of Energy Management Control Systems. This would include Advanced Metering systems as well as improved overall Building Control Systems.
 - Provide funding and engineering support on implementation, operation and maintenance.
- Design and Construction:
 - Incorporate Energy issues into the design and construction process from an early phase.
- Procurement:
 - “Alternative” Energy sources: solar, wind, bio-diesel etc.
 - Equipment purchases, Energy Star
 - Life-cycle analysis
- Contracting:
 - Energy Savings Performance Contracts
 - Co-generation

Establish Operational Controls: Construction

- Facilities Management
 - Use whole building design guide for major renovations projects
 - NEPA impact statement
 - Greenhouse Gas Emissions
- Contracting:
 - Enhanced Lease Options
- Design and Construction:
 - Update of Master Plans and specifications to reflect “Green Building” Design objectives
 - Specifications that optimize energy efficiency and renewable energy
 - Options for LEED Certification



Establish Operational Controls: Acquisitions

- GSA Approved Procurement Options:
 - Vehicles: cars, trucks and buses
- Credit card holders
- Comprehensive Procurement Guidelines

Establish Operational Controls: Electronics

- Centrally controlled purchases of electronics & medical equipment:
 - Purchasing criteria: EPEAT, Energy Star
 - Life-cycle cost analysis
 - Leasing programs
 - Disposal and substitution (LCDs for CRTs) must be taken into consideration: universal waste procedures and centrally administered recycling contracts (UNICOR)
- Disposal:
 - Logistics service
 - Transportation requirements (Facilities Management)
- Operational issues and Power management options:
 - Two sided printing
 - Automatic shut-down (“sleep” mode): computers must be “on” for regularly software patches and updates. Power management solutions are being investigated.
 - Screen savers

Establish Operational Controls: Water Use

- Facilities Management
 - Infiltration & Intrusion
 - Process water
 - Irrigation
 - Water conservation in bathrooms
 - NEPA impact statement Greenhouse Gas Emissions
- Contracting:
 - Major renovation projects
- Design and Construction:
 - Water cooled condensers and compressors
 - Specifications that optimize water efficiency and reuse

Conclusions:

- Environmental Management System:
 - Integrate Environmental decisions into top-management activities.
 - Ste-by-step process
 - Promote Communication and awareness
- Management Review of program:
 - Evaluate effectiveness as well as overall operational **efficiency**
 - Target “kinks” in the system

